(1) 15 foot-degrees (4.57 meter-degrees) for ocean and Great Lakes winter service; and

(2) 10 foot-degrees (3.05 meter-degrees) for lakes, bays, sounds, and Great Lakes summer service.

(b) For the purpose of this section, downflooding angle means the static angle from the intersection of the vessel's centerline and waterline in calm water to the first opening that does not close watertight automatically.

### § 174.020 Alternate intact stability criterion.

A barge need not comply with § 174.015 and subparts C and E of part 170 of this chapter if it has the following characteristics:

(a) The weather deck is watertight.

(b) The barge's hull proportions fall within any one of the ratios in categories (A) through (D) in Table 174.020.

(c) The maximum cargo height is 30 feet (9.25 meters) or a value equal to the depth of the barge amidships, whichever is less.

TABLE 174.020

| Category | Beam/depth ratio | Draft/depth ratio |
|---|---|---|
| A | 3.00 to 3.74 | Equal to or less than 0.70. |
| B | 3.75 to 3.99 | Equal to or less than 0.72. |
| C | 4.00 to 4.49 | Equal to or less than 0.76. |
| D | 4,50 to 6.00 | Equal to or less than 0.80. |

## Subpart C—Special Rules Pertaining to Mobile Offshore Drilling Units

### § 174.030 Specific applicability.

Each mobile offshore drilling unit (MODU) inspected under Subchapter IA of this chapter must comply with this subpart.

### § 174.035 Definitions.

(a) For the purpose of this subpart the following terms have the same definitions as given in Subchapter IA of this chapter:

(1) *Column stabilized unit.*

(2) *Mobile offshore drilling unit.*

(3) *Self-elevating unit.*

(4) *Surface type unit.*

(b) For the purpose of this subpart—

(1) *Downflooding* means the entry of seawater through any opening that cannot be rapidly closed watertight, into the hull, superstructure, or columns of an undamaged unit due to heel, trim, or submergence of the unit.

(2) *Downflooding angle* means the static angle from the intersection of the unit's centerline and waterline in calm water to the first opening through which downflooding can occur when subjected to a wind heeling moment (Hm) calculated in accordance with § 174.055.

(3) *Normal operating condition* means a condition of a unit when loaded or arranged for drilling, field transit, or ocean transit.

(4) *Severe storm condition* means a condition of a unit when loaded or arranged to withstand the passage of a severe storm.

### § 174.040 Stability requirements: general.

Each unit must be designed to have at least 2 inches (50mm) of positive metacentric height in the upright equilibrium position for the full range of drafts, whether at the operating draft for navigation, towing, or drilling afloat, or at a temporary draft when changing drafts.

### § 174.045 Intact stability requirements.

(a) Each unit must be designed so that the wind heeling moments (Hm) and righting moments calculated for each of its normal operating conditions and severe storm conditions, when plotted on GRAPH 174.045, define areas that satisfy the equation:

$$\text{Area}(A) \geq (K) \times (\text{Area}(B))$$

where—

(1) K=1.4 except that if the unit is a column stabilized unit K=1.3;

(2) Area (A) is the area on GRAPH 174.045 under the righting moment curve between 0 and the second intercept angle or the angle of heel at which downflooding would occur, whichever angle is less; and

(3) Area (B) is the area on GRAPH 174.045 under the wind heeling moment curve between 0 and the second intercept angle or the angle of heel at which downflooding of the unit would occur whichever angle is less.

(b) Each righting moment on graph § 174.045 must be positive for all angles